

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 2, 4, 5, 7, 8, 10, 11 and 13 are pending in the application. Claims 2, 4, 5, 7, 8, 10 and 11 are amended; Claim 13 is newly added; and Claim 12 is canceled without prejudice or disclaimer by the present amendment. Support for the amended claims can be found in the original specification, claims and drawings.<sup>1</sup> No new matter is presented.

In the Final Office Action of September 28, 2007 (herein, Final Office Action), Claims 4, 7, 10 and 11 were rejected under 35 U.S.C. § 102(e) as anticipated by Sarkkinen et al. (U.S. Pub. 2001/0046877, herein Sarkkinen); and Claims 2, 5, 8 and 12 were rejected under 35 U.S.C. §103(a) as unpatentable over Sarkkinen.

In response to the above noted rejections, Applicants respectfully submit that independent Claims 2, 4, 5, 7, 8, 10, 11 and 13 recite novel features clearly not taught or rendered obvious by Sarkkinen.

Regarding independent Claim 4, this claim recites a radio communication system including a radio station configured to:

***...randomly select a mobile station to which a transmission request for control information is transmitted;***  
...transmit the transmission request to the mobile station selected by the mobile station selector; and  
...control the predetermined down link transmission power based on the control information transmitted by the mobile station that has been selected by the mobile station selector...

Independent Claims 7 and 10, while directed to alternative embodiments, are amended to recite substantially similar features. Accordingly, the remarks and arguments presented below are applicable to each of independent Claims 4, 7 and 10.

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<sup>1</sup> E.g., specification, Fig. 5, S12-S14 and Fig. 9.

As described in an exemplary embodiment at Figs. 8 and 9, and the corresponding description of the specification, a mobile station selector in the radio station may randomly select a specific mobile station to which a transmission request for control information is sent. Then, the radio station controls the downlink transmission power of the multicast communication based on the control information received by the selected mobile station.

Turning to the applied reference, Sarkkinen describes a system and method for controlling the power level of multicast data transmissions in a wireless communications network.<sup>2</sup>

Sarkkinen, however, fails to teach or suggest that the radio station “*randomly selects a mobile station to which a transmission request for control information is transmitted*,” as recited in independent Claim 4.

In contrast, Sarkkinen describes that a UTRAN transmits system broadcast information (i.e., SIB signaling messages) including a predetermined threshold (i.e., SIB value) to all UEs in a cell, not by multicast, but by broadcast using the BCH transport channel.<sup>3</sup> When the power level value of the SIB signaling message measured by a UE is less than the SIB value included in the received SIB signaling message, the UE transmits a multicast power indication to the UTRAN.<sup>4</sup> The RNC 30 in the UTRAN controls the starting power level for multicast data transmission based on the multicast power indication transmitted from the UE.<sup>5</sup>

Therefore, Sarkkinen describes that the UTRAN transmits SIB signaling messages to all UEs in a cell, not by multicast, but by broadcast using the BCH transport channel, and fails to teach or suggest “*randomly selecting a mobile station to which control information transmission request is transmitted*” as recited in amended independent Claim 1.

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<sup>2</sup> Sarkkinen, Abstract.

<sup>3</sup> Id., para. [0033], ll. 1-6, and ref. numeral 301 of Fig. 3.

<sup>4</sup> Id., para. [0033], ll. 12-26, and ref. numerals 303 and 304 of Fig. 3.

<sup>5</sup> Id., para. [0036], ll. 7-9.

Accordingly, Applicants respectfully request that the rejection of Claim 4 under 35 U.S.C. § 102 be withdrawn. For substantially similar reasons, it is also submitted that independent Claims 7 and 10 patentably define over Sarkkinen.

Amended independent Claim 2 relates to a radio communication system in which the same information is transmitted from a radio station to a plurality of mobile stations (e.g. multicast) with a predetermined downlink transmission power. The radio station includes a transmission power controller configured to control the predetermined downlink transmission power based on control information transmitted by the mobile stations. The mobile station comprises:

a decision unit configured to decide to transmit the control information to the radio station at a predetermined frequency, ***without using reception quality of the same information transmitted by the radio station***, when the same information is received by a transceiver...

Independent Claims 5, 8, 11 and 13 while directed to alternative embodiments, recite similar features. Further, independent Claims 11 and 13 recite the additional feature that the mobile station “decides to randomly transmit control information to a radio station” without taking into account reception quality. Accordingly, the remarks and arguments presented below are applicable to each of independent Claims 2, 5, 8, 11 and 13.

As described above, in Sarkkinen, the UE decides to transmit a multicast power indication to the UTRAN based on reception quality such as a received power level of a SIB signaling message. Sarkkinen, therefore, fails to teach or suggest that a mobile station decides to transmit control information from the mobile station to the radio station at a predetermined frequency (Claims 2, 5 and 8) or randomly (Claims 11 and 13), without taking into account reception quality.

Moreover, the Advisory Action of January 31, 2008, in rebutting the previously presented arguments regarding Claim 11, asserts that Sarkkinen “clearly shows that

transmission is controlled based on received signal levels... which necessarily is a random result dependent on environmental factors” and “the claim language does not distinguish over a random result caused by environmental factors” (emphasis added). Thus, this interpretation of Sarkkinen supports the interpretation that the control signals sent from the UEs are based solely on the quality of a received signal.

In contrast, Claims 2, 5, 8, 11 and 13 are amended to specify that the mobile station devices to randomly, or at a predetermined frequency, ***without using reception quality of the same information transmitted by the radio station.*** As described in an exemplary embodiment at Fig. 5 and p. 13 of the specification, the mobile station first determines (randomly, or at a predetermined frequency) whether to transmit the control information (S12), and ***then*** subsequently calculates the reception quality (S13).

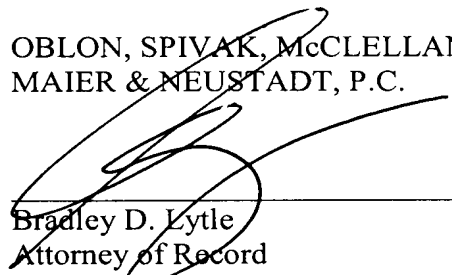
Sarkkinen, as characterized in the Advisory Action, describes that the transmission of control information is controlled based on “received signal levels... dependent upon environmental factors.” Therefore, Sarkkinen fails to teach or suggest a mobile station that “decides to transmit the control information to the radio station at a predetermined frequency (or randomly), ***without using reception quality of the same information transmitted by the radio station***, as recited in independent Claims 2, 5, 8, 11 and 13.

Accordingly, for at least the reasons discussed above, Applicants respectfully request that the rejection of Claims 2, 5, 8, 11 and 13 under 35 U.S.C. § 103 be withdrawn.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 2, 4, 5, 7, 8 and 10, 11 and 13 is patentably distinguishing over the applied references. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of the application is therefore requested.

Respectfully submitted,

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